

REMARKS

In the present Amendment, Claims 1-8 and 10-24 have been cancelled.

Claims 25-32 have been added as new claims. These claims are supported by the specification, for example, at page 6, line 23-page 7, line 4; at page 9, lines 19-24; in Examples 1 and 3.

No new matter has been added, and thus entry of the present Amendment is respectfully submitted to be proper. Upon entry of the Amendment, Claims 25-32 will be all the claims pending in the application.

Applicants respectfully submit that all of the rejections raised by the Examiner in the Office Action dated July 28, 2003, are moot because Claims 1-8 and 10-24 have been cancelled.

Applicants respectfully submit that the newly added claims 25-32 are patentable over the cited references for at least the following reasons.

Baldo discloses a luminescent layer containing tris(2-phenylpyridine) iridium complex (Ir(ppy)_3) with 4,4'-N,N'-dicarbazole-biphenyl (CBP) in the same layer. However, Baldo does not disclose using all of red, green and blue light-emitting materials in the same layer. Further, Baldo describes that blue emission from CBP is negligible as to achieve efficient energy transfer (page 6, left column, 2nd paragraph). That is, CBP of Baldo is not a blue light-emitting material.

Still further, the spectrum of the Commission Internationale de L'Eclairage (CIE) chromaticity coordinates have $x = 0.27$ and $y = 0.63$, which is not white emission. The white point is $x = 0.33$ and $y = 0.33$. That is, Baldo does not disclose a white light-emitting device.

Forrest discloses different luminescent layers containing either Ir(ppy)₃ complex with CBP or [2-methyl-6-[2-(2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]-4H-pyran-ylidene] propane-dinitrile (DCM2) with CBP in different layers. Forrest describes improving the efficiency of fluorescence processes by using a phosphorescent sensitizer molecule to excite a fluorescence material in a red-emitting organic light emitting device (OLED) (col. 6, line 63-col. 7, line 9).

However, Forrest does not disclose using red, green and blue light-emitting materials in the same layer or different layers. As described above, the device of Forrest is a red emission OLED, but not a white emission OLED. In Forrest, Ir(ppy)₃ acts as a phosphorescent sensitizer and there is no blue light-emission material.

Egusa does not explicitly disclose using a combination of red, green and blue light-emitting materials in same layer or different layers. As the Examiner noted, Egusa does not disclose an orthometallated complex. Egusa merely teaches that the light emission intensities of red, green and blue can be controlled, thereby efficiently obtaining white light emission (col. 26, lines 26-28). Egusa does not disclose white emission using red, green and blue light-emission materials. In Egusa, the second dye emits phosphorescence via energy transfer from the first dye (column 26, lines 43-45 and 63-66). Egusa does not teach using the first dye as a light-emission material.

In view of the above, even if there might be motivation to combine the references, the combination does not result in the present invention, because none of the cited references teaches or suggests using red, green and blue light-emitting materials at least one of which is an

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orthometallated complex. That is, the present invention is not obvious over the cited references. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejections.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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